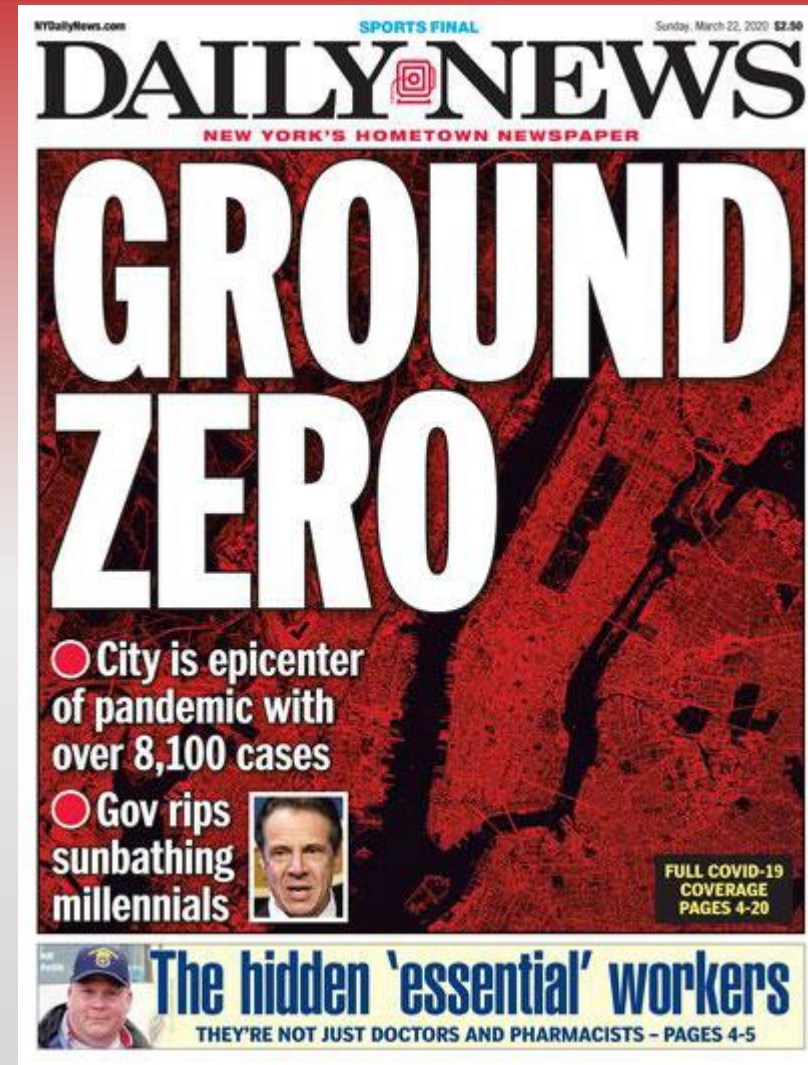




- **December 31, 2019**
 - 1st reports of a new virus in Wuhan China
- **January 30, 2020**
 - WHO declares a global health emergency
- **February 29, 2020**
 - 1st Coronavirus death in the U.S.
- **March 1, 2020**
 - 1st confirmed case of Coronavirus in NY
- **March 4, 2020**
 - 1st confirmed case of Coronavirus in NJ



Tracing the Impact of COVID-19

- The first news reports from China of the Novel Coronavirus were published in December of 2019
- The first known cases in New York and New Jersey weren't reported until March 2020
- Between December 2019 and March 2020, was there any impact on the lives of the residents of these two States?
- Starting in March 2020, how quickly did the virus spread and what impact did it have on people's lives?
- What can we learn from doing a data analysis of news reports?

Let's Check the News

January 2020

- In January 2020, there were only a few news articles that discussed the Coronavirus as it relates to life in NY and NJ.
- Most of those articles dealt with issues of anxiety and fear of the impending virus.

- Blint-Welsh, Tyler. 2020. "Some Lunar New Year Events in New York Canceled Over Fear of Coronavirus: One Organization's Leader Says Group Heard 'a Lot of Concerns about Having a Very Big Public Gathering.'" *Wall Street Journal*, January 29, 2020. <https://www.wsj.com/articles/some-lunar-new-year-events-in-new-york-canceled-over-fear-of-coronavirus-11580339002>.
- Bump, Bethany. 2020. "Cuomo: Still No Cases of Coronavirus in NY, but Flu Is on Rise." *Times Union*, January 30, 2020. <https://www.timesunion.com/news/article/Cuomo-Still-no-cases-of-coronavirus-in-New-York-15017721.php>.
- Goldstein, Joseph, and Jeffrey E. Singer. 2020. "In New York, Experts Brace for Arrival of Coronavirus: 'It's Inevitable.'" *New York Times*, January 27, 2020. <https://www.nytimes.com/2020/01/27/nyregion/new-york-city-coronavirus.html>.
- Goldstein, Joseph, and Singer, Jeffrey E. 2020. "New York Braces for Coronavirus: 'It's Inevitable.'" *The New York Times*, January 27, 2020, sec. New York. <https://www.nytimes.com/2020/01/27/nyregion/new-york-city-coronavirus.html>.
- Salcedo, Andrea. 2020. "Coronavirus, a Fire and Anxiety in the Chinese Community." *The New York Times*, January 30, 2020, sec. New York. <https://www.nytimes.com/2020/01/30/nyregion/coronavirus-chinatown-museum-fire.html>.
- Sanders, Anna, and Burke, Kerry. 2020. "Possible Coronavirus Scare for NYC, but Health Department Says No Confirmed Patient Anywhere in Five Boroughs." *New York Daily News*, January 31, 2020. <https://www.nydailynews.com/new-york/queens/ny-coronavirus-case-queens-20200131-5nxjhburtbnbhpq4ypvc3yua3q-story.html>.

February 2020

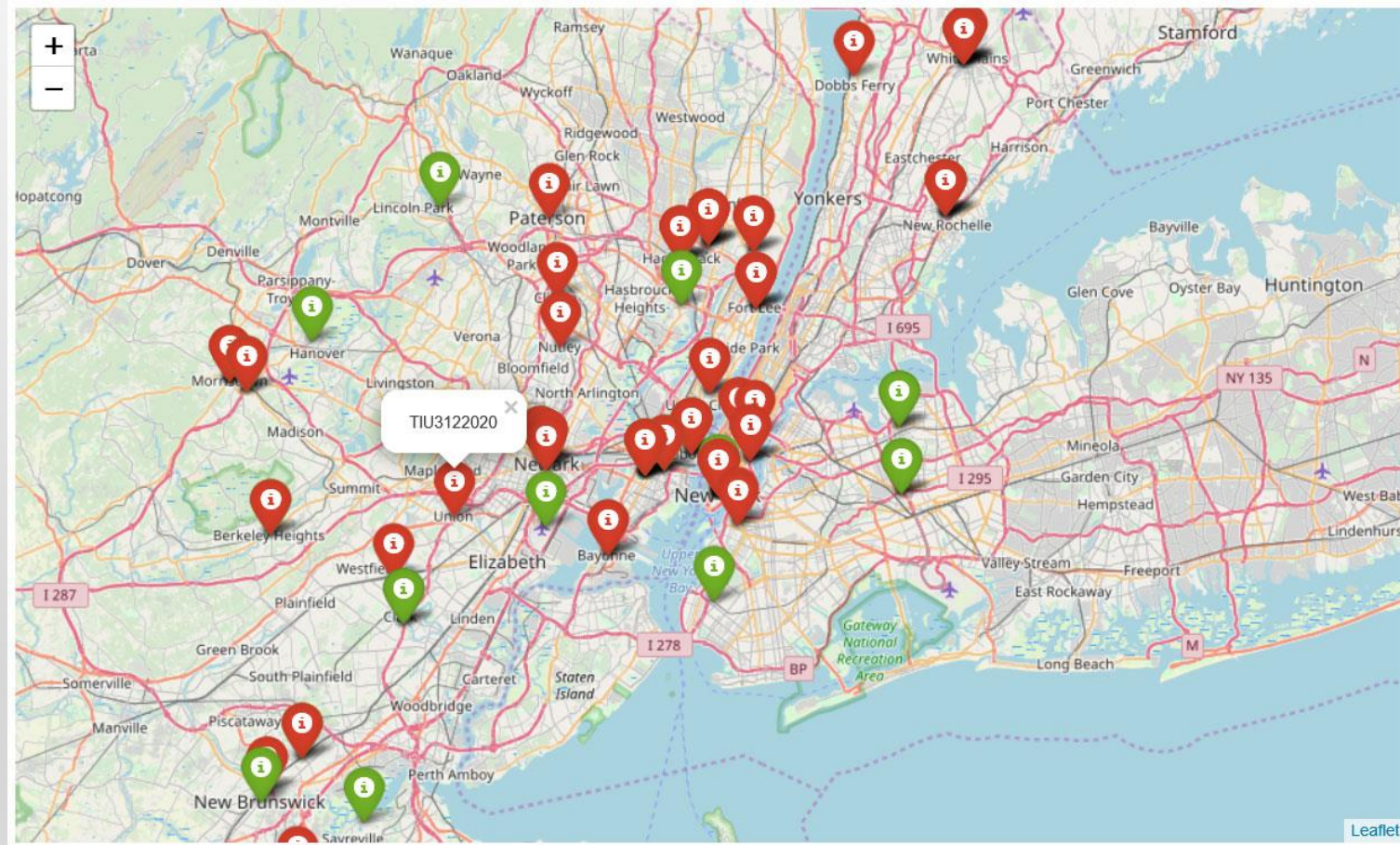
- Newspaper coverage more than doubled from the previous month.
- Sample news articles:
 - Shahrighian, Shant. 2020. “NYC Announces Two More Possible Coronavirus Cases, Bringing Total Tested in City to Four.” *New York Daily News*, February 5, 2020, sec. Politics, News, New York.
 - Calfas, Jennifer. 2020. “In New Jersey, Four Chinese Nationals Are Monitored for Coronavirus.” *Wall Street Journal*, February 7, 2020. <https://www.wsj.com/articles/in-new-jersey-four-chinese-nationals-are-monitored-for-coronavirus-11581106998>.

March 2020

- In the first two weeks alone, the news coverage increased exponentially.
- Sample news articles:
 - Brum, Robert. 2020. “Coronavirus: Six Rockland Cases, Hundreds under Quarantine.” *Journal News*, March 10, 2020. <https://www.lohud.com/story/news/local/rockland/2020/03/10/coronavirus-rockland-ramapo-east-students/5009052002/>
 - Goldman, Jeff. 2020. “N.J. Coronavirus Update: 5 New Cases Pushes Total to 11 for State.” *NJ Advanced Media*, March 9, 2020, sec. Coronavirus. <https://www.nj.com/coronavirus/2020/03/nj-coronavirus-update-2-new-cases-pushes-total-to-8-for-state.html>

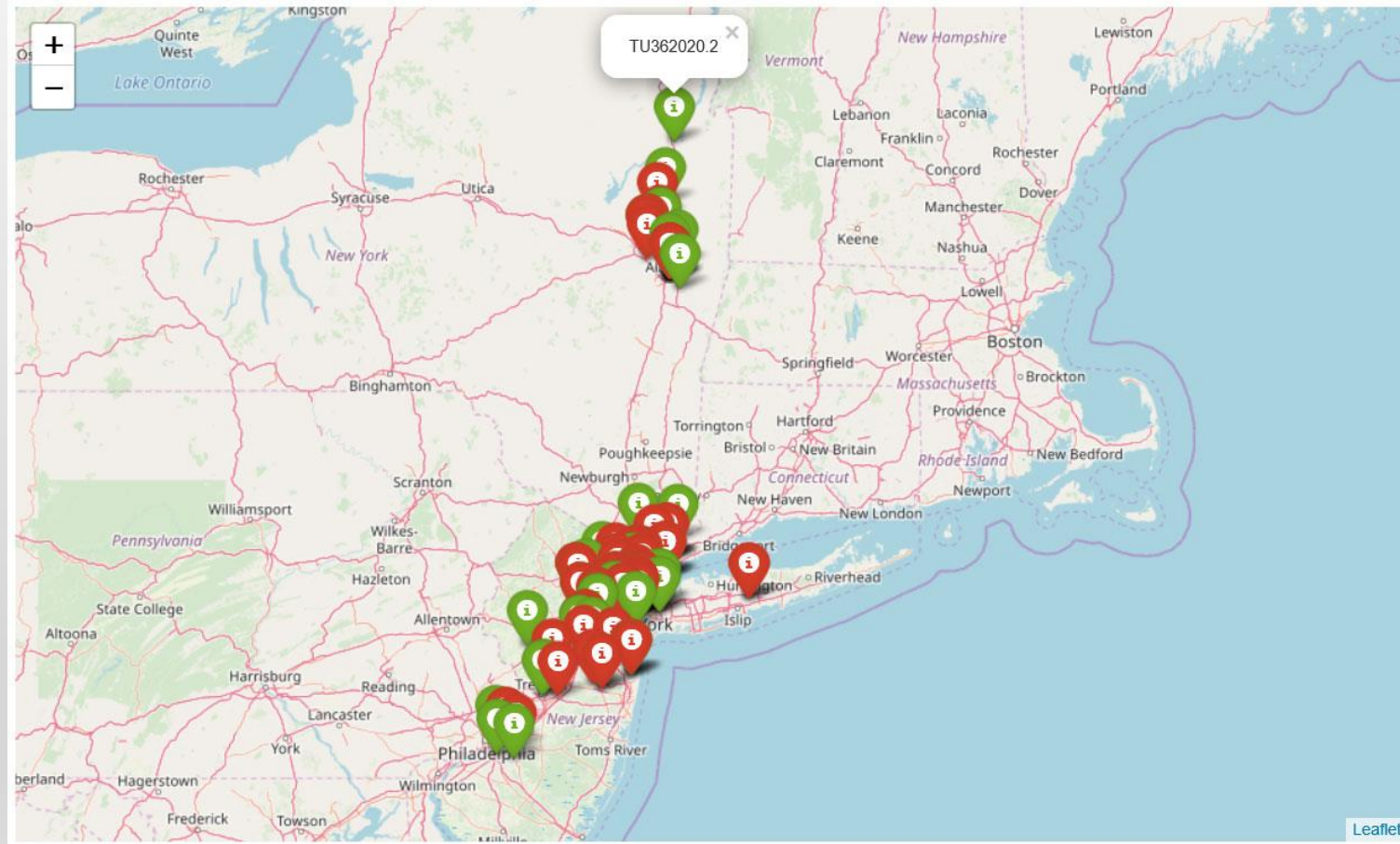
- The increase in coverage over time was also evident in the increase in coverage over the geographical area. In mapping the geography of news reporting, you can see which areas were impacted more than others.
- This project was conducted to illustrate the value of geographical analysis of news reporting.
- The collected articles were analyzed for their geographical content, then plotted using Folium mapping in Python with Pandas.
- The following shows the end result of this mapping project.

Map of the Regional Geography of News Reports Related to COVID-19



- Each marker on the map represents the geographical location featured in a news article.
- The color of each marker represents a classification. In this case, the difference between Medical related reports and Social related reports.
- The code on each marker identifies the citation of a news article.
- In it's completed form, this interactive map will be accompanied by a complete list of citations, each one annotated with a unique CiteKey.
- Being an interactive map, the user can zoom in on a specific location, or zoom out to see the full extent of the coverage.

Expanded View of Geographical Coverage



In Conclusion

- Extracting Geographical Data from News Reports can provide new ways to view a particular issue.
- News coverage, especially on the local level, can reveal insights into the ways in which an issue of concern may impact individual communities.
- This can be a useful tool for government authorities to further assess the needs of the community, as well as their concerns and fears.
- When applied in a business context, this tool can be useful in identifying hotspots. Areas where new opportunities may present themselves.